Appendix D: Memo sent to parks for ranking and prioritizing suggested monitoring projects

Priorities for Plant Monitoring Projects by the Vital Signs (I&M) Program

The Vital Signs program has two major components: tracking overall ecosystem health and addressing park-specific issues. At the NGP I&M annual meeting in January, I will be presenting a preliminary design for monitoring vegetation as one of the indicators of overall ecosystem health. In general, this will consist of periodic sampling of plant community composition and diversity, some measure of standing biomass relevant to fuel loads, and density of trees, poles, tree seedlings, and shrubs. This sampling will be done in permanent parks located systematically throughout vegetated areas of the parks.

At many of the scoping meetings, however, park staff expressed significant interest in monitoring of more specific aspects of the vegetation. I have listed these in the table below; blank rows at the bottom are for you to fill in other projects. I would appreciate it if you would fill in the table. In the second column, indicate the importance of each of the potential monitoring projects to your park on a scale of 0 to 4, where 0 = not important at all; 1 = minimally important; 2 = somewhat important; 3 = important; 4 = very important. In the third column, rank the potential monitoring projects as to their priority in your park (1 is highest priority). In the fourth column, note whether you think the park could take on the project without the Vital Signs program (see consideration 4 below). Note that I have included the ecosystem health monitoring project in the table. Although the Vital Signs program basically must incorporate this into its monitoring plan, your importance rating and prioritization of this project with respect to the others will help determine the allocation of Vital Sign resources to each of the two major components of the program. Although these priorities will have to be considered again with respect to other (non-plant) "vital signs" at a later date, ranking the plant priorities now may make it possible to incorporate these priorities into the general (ecosystem health) vegetation monitoring scheme.

Please consult with other park staff (superintendents, other natural resource staff, etc.) in making your determinations, and feel free to jot down comments in the Comments section below the table.

Before filling in the table, please take a few things into consideration.

1. Note that I have included the ***ecosystem health monitoring*** project in the table. Although the Vital Signs program basically *must* incorporate this into its monitoring plan, ***your importance rating and prioritization of this project*** with respect to the others ***will help determine the allocation of Vital Sign resources between this and other monitoring projects***. Although these priorities will have to be considered again with respect to other (non-plant) "vital signs" at a later date, ranking the plant priorities now may make it possible to incorporate these priorities into the general (ecosystem health) vegetation monitoring scheme.
2. At this time, the proposed plan is for ***Vital Signs and Fire Effects monitoring to be very integrated. The monitoring program will be designed to provide the information on Fire Effects that you need for evaluating your fire management***. The degree to which these two programs will take on invasive species monitoring related to EPMT actions is

not yet determined. The "Effects of complete absence of fire" project in the table was suggested at Badlands and would require excluding fire from a normally burned area.

3. The Natural Heritage ***conservation status rankings of plant species considered rare by a park's state and all vegetation types in your park are summarized*** in park-specific handouts. You may want to consult that before rating "Rare plant communities" and "Rare plant species". With few exceptions, the species considered rare in a state are globally secure but at the edge of their range in that state. For vegetation types (as described by the Veg Mapping Program), please note that some types were too small to be mapped, and therefore may not be described. The conservation status assigned to a species or vegetation type was determined by experts in the field. You may have other criteria for determining the importance of species or vegetation types to your park (forage or wildlife habitat, for example). In the comment section below the table, please describe these criteria for each of the species/vegetation types you consider important.
4. The ***Vital Signs program is not designed to take on all long-term monitoring done in parks***. Some parks already have monitoring programs in place. In all likelihood, the Vital Signs program will not take these over. ***When you are rating importance and assigning priorities, please do <u>not</u> take into account what park staff are currently monitoring or think they can monitor in the future.*** However, *do* note in the fourth column of the table how the park does/could contribute to that monitoring project.

Thank you!

- In the **second column**, indicate the ***importance*** of each of the potential monitoring projects ***to your park*** using the following scale:
  - 0 = not important at all
  - 1 = minimally important
  - 2 = somewhat important
  - 3 = important
  - 4 = very important.
- In the **third column**, ***rank*** the potential monitoring projects ***as to their priority in your park*** (**1 is highest priority**).
- In the **fourth column**, note your ***park's current or potential contribution*** to the project ***without the Vital Signs program***.

Potential Plant Monitoring Project	Importance to Park*	Priority to Park	Park Contribution
"Ecosystem Health" (plant community composition and diversity)			
Invasive species early warning			
Invasive species treatment assessment			
Grazing effects (exclosures)			
Air pollution effects			
Rare plant communities			
Restoration assessment			
Effects of *complete absence* of fire			
Invasive species mapping			
Browse rates/Deer effects			
Riparian tree recruitment			
Rock-climbing impact			
Canal seepage effects			
Pathogens/pests on plants			
Woody encroachment into prairie			
Rare plant population(s) [rank species in comments section on reverse]			